SCIENCES

BACKGROUND

ON WORLD POLITICS

a digest of military, scientific, economic, and social developments bearing on world politics.

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BACKGROUND on World Politics

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CONTENTS

BACKGROUND

What It Is and What It Is Not i

PART I

THE UNDERDEVELOPED COUNTRIES

Economic Development, Cultural Change and Possibilities of Technical Assistance 1

PART II

THE GREAT POWERS
WAR POTENTIAL AND CAPACITY FOR TECHNICAL LEADERSHIP

Military Policies, Weapons, Bases, and Techniques:
America 5
Allies 12
The USSR and Communist China 15

Economic Strengths, Weaknesses, and Trends:
America and the Free World 18
The USSR AND Communist China 21

Scientific and Technical Potential 24

PART III

THT GOALS, PROCESSES, AND
POLITICAL SUBSTRUCTURES OF FOREIGN POLICIES

America and the Free World 31
The USSR and Her Allies 38
The World Community 40

PART IV

VALUES 44

PART V

NOTES ON THEORY OF INTERNATIONAL RELATIONS 48

BACKGROUND

A Digest of Fields Bearing on World Politics

WHAT IT IS: Everybody in international relations knows that, to understand it, you must cover the spectrum of military, scientific and economic potential--potential for war and for peaceful leadership--and the taboos, hates, and values of peoples and of their leaders, as well as the international institutions and national political processes which we think of as political science.

And everybody in international relations knows that no individual can cover all this. No one can possibly find time to do so.

BACKGROUND does it for you. A team of 14, one specialist in each field, covers 123 publications in military matters, (weapons, techniques, policies, bases, vulnerabilities) economics, the physical sciences, geography, sociology, management and industrial technology, labor, public administration, international administration, social psychology, history, public opinion and communications, and law. If you teach or write or think about world politics and international relations, BACKGROUND is the small end of the funnel.

WHAT IT IS NOT: BACKGROUND does not review nor abstract books. It does not cover conventional IR or political science journals (presumably its audience reads these and for those who do not there are POLITICAL SCIENCE ABSTRACTS.) It does not cover magazines of national mass readership. It does not carry original articles; its job is not to add to the river of print but to funnel off and regularize the flow of fresh data and ideas about nations' weapons, growth, systems and taboos, which must irrigate the subject of world politics if lectures, predictions and writings are not to wither and dry, or to produce strange fruit indeed.

Its interests are not antiquarian; its focus is upon the projectable very recent past and present, and the future. It is not a bibliography but a digest.

It will be published bimonthly. Your comments are invited.

The Editor

PART I

THE UNDERDEVELOPED COUNTRIES

ECONOMIC DEVELOPMENT, CULTURAL CHANGE AND POSSIBILITIES OF TECHNICAL ASSISTANCE

TRENDS IN WORLD ECONOMIC GROWTH

Production increased rapidly after World War II but during the last 3 years growth has diminished to normal rates. Rates of growth, to be maintained now require a greater portion of the national income to be invested in capital goods than prewar. There is danger of inflation.

Underdeveloped nations can get money for mines, factories, utilities, etc., but they can no longer attract or borrow it for projects which cannot pay off directly, e.g., schools, roads, hospitals.

(Population Pressure Will Increase)

Population pressure will increase. Population seems to be outgrowing the food supply.

(W. Arthur Lewis, "Ten Years of Economic Growth," BULLETIN OF THE ATOMIC SCIENTISTS, XII, Oct. 1956. The same expectation of population outgrowing the food supply is held by Harrison Brown in "A Changed and Changing World," ibid.)

. . . . . .

Alarmingly rapid world population growth since 1945 will accelerate. Declines in death rates are pushing the heavily populated agrarian countries close to mass famine. Nothing much is being done about this.

(Robert C. Cook, "The Population Bomb," ibid.)

U.S. FOOD SURPLUSES--A POSSIBLE SHORT RUN SOLUTION TO POPULATION PRESSURE

During the past two years U.S. agricultural export policy has shifted; once we sought to protect foreign markets, now we seek primarily to reduce our surplus food stocks. Some we barter away, some we give as emergency relief grants, much we in effect give away for local currencies.

Both GATT and FAO has weighed the effects. GATT, at its Ninth Session, resolved that countries arranging such food transfers should consult with other suppliers "to keep the liquidation orderly" and if

possible to expand consumption. Consultation procedures have been established; the U.S. exports have not actually displaced any normal markets although our volume of food exports has risen rapidly (From July 1955 to July 1956 it was $1,320,000,000.)

FAO's Committee on Commodity Problems urges that we give our surpluses to undeveloped nations. Pilot studies show that if given enough food stuffs such nations can feed labor withdrawn from subsistence agriculture and themselves pay for 30-50% of development costs (in some types of projects up to 75%.)

(Frederick C. Dirks, "U.S. Exports of Surplus Commodities," INTERNATIONAL MONETARY FUND STAFF PAPERS, V, Aug. 1956. For possible long-run solutions to population growth problems see Sir George Thomson, "The New Industrial Revolution," BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957, p. 28 of this journal.)

ECONOMIC GROWTH OF NATIONS

Quantitative data from the 1890's to 1953-54 (including wars and revolutions, and flattening out business cycles) indicates that "secular growth" (population, product, and income per capita) of nations shows "long swings from trough to trough and from peak to peak are either...20 to 25 or 40 to 50 years in duration. There seems to be no consistency in the distribution...

"...we cannot expect a notable coincidence in timing... among countries."

Western Europe has had a high rate of 15% per decade growth in per capita income; America and Canada around 20%.

Per capita income levels in West Europe before industrialization must have been significantly higher than in underdeveloped Asia and Africa today. Of the U.S. and Canada, one has to go back more than 130 years to find levels of per capita income comparable to Asia and Africa today.

(Simon Kuznets, "Levels and Variability of Rates of Growth," I of a series, Quantitative Aspects of the Economic Growth of Nations, in ECONOMIC DEVELOPMENT AND CULTURAL CHANGE, V, Oct. 1956)

ATOMIC ENERGY NO SHORT CUT FOR UNDEVELOPED NATIONS

The world's sources of conventional energy are being used up. In the next 40 years atomic energy must be brought into use widely.

But development of atomic energy will not narrow the gap between the undeveloped and developed nations; because of its tremendous costs in capital and scarce, highly trained technicians it will increase the gap. Also, electric power is only one of the requirements for industrialization.

(Jules Wayne, "Post Geneva Economic Aspects of Nuclear Power," ATOMIC INDUSTRIAL FORUM REPORT No. 7, COMMERCIAL AND INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY. The width of the technical gap between developed and undeveloped countries is also stressed by Gunnar Randers, in "Post Geneva Observations on International Atomic Energy Cooperation," ibid. See p. 24 of this journal.)

THE PRICE OF MONEY IN UNDERDEVELOPED COUNTRIES

"The average level of interest rates...can...be lowered by encouraging the development of the banking system...Statutory control of interest rates...does not lead to a lowering of the effective rate...

"The interest rate structure and lending practices in the organized money markets of the underdeveloped countries conform fairly closely to those...in developed countries...the organized money markets in underdeveloped countries are dominated by commercial banks which have been modeled upon the commercial banking practices of developed countries...

"The long-term trend of interest rates in underdeveloped countries is downward..."

(U Tun Wai, "Interest Rates in the Organized Money Markets of Underdeveloped Countries," INTERNATIONAL MONETARY FUND STAFF PAPERS, V, Aug. 1956)

AFRICAN POSSIBILITIES

The United States grows more and more dependent upon foreign strategic raw materials, and must seek out African sources. The Bomi Hills ore find in Liberia, yielding the richest iron ore in the world today, is cited as an example of the possibilities.

(Robert J. Goodman and Elizabeth Johnson, "The Bomi Hills Story," JOURNAL OF GEOGRAPHY, LV, Nov. 1956)

ECONOMIC DEVELOPMENT AND CULTURAL CHANGE IN AFGHANISTAN: TRANSITION TO MODERN NATION BEGUN

After centuries of disorder Afghanistan seems likely to become a modern nation soon. In the struggle, since 1880, between the demands of a central government and tribal law, tribalism has declined; central government has survived and become accepted.

Two large dams have been built since 1946. Afghanistan is now almost ready for large-scale irrigation. This will greatly increase the food supply. Nomadic wandering will decline and urbanization, later industrialization, will appear. The transformation has begun.

(Louis Depree, "The Changing Character of South-Central Afghanistan Villages," HUMAN ORGANIZATION, 14, Winter, 1956)

CEYLON: STRENGTH OF ETHNIC DIFFERENCES UNDIMINISHED DESPITE 50 YEARS OF POLITICAL DEMOCRACY

The Indian government has managed to secure direct representation in Ceylon's House of Representatives, reviving "...a relic of the past, the creation of a special electorate represented by members of a special community."

After nearly 50 years of the elective process, with democratic processes apparently well established, it is still impossible for a member of one of the two major language groups, Singhalese and Tamil, to represent the other. And it is still not possible for the Indian minority to feel it can be fairly represented in the legislative body without Indians representing Indians as Indians.

(S. Namasivayam, "The General Election in Ceylon in 1956," PARLIAMENTARY AFFAIRS, London, IX, Summer, 1956)

PART II

THE GREAT POWERS

WAR POTENTIAL AND CAPACITY FOR TECHNICAL LEADERSHIP

I. MILITARY POLICIES, WEAPONS, BASES, AND TECHNIQUES

AMERICA:

POLICIES:

AMERICAN THINKING ON NUCLEAR WEAPONS

"...Disarmament means rational armament, especially in the nuclear field....

"Decisions with regard to the size and type of nuclear weapons /should depend upon military usefulness and moral propriety/....

"Wars in the future will be nuclear wars. This does not mean that they need be all-out wars. Such wars are no more acceptable than murder or suicide...certain nuclear weapons, which we might not intend to use in actual warfare, are still useful as a deterrent of war, as a means of terrifying the enemy or at least... of striking a 'balance of terror' .../but/ a balance of terror is too easily upset /through/...miscalculation. Such a balance may even put a premium on the moral cynicism that would not shrink from striking the first blow...

"The deterrent value of nuclear weapons is drained out of them when there is any doubt about their actually being used...

"I know of no reason why we should develop bombs more powerful than those we now have...

"Increasing concentration should be set on the stockpiling of a wide range of very small nuclear weapons... A stockpile of this composition will support a theory of moderate and discriminating use of force against all aggression--including aggression that may be minor in degree...

"Superior strength means flexible strength. And flexible strength means the fuller development of the capability for limited military use of nuclear weapons...."

(Statement by Thomas E. Murray, member of the Atomic Energy Commission, to subcommittee of the Senate Foreign Relations Committee, "Rational Nuclear Armament," ORDNANCE, XLI, Sept.-Oct. 1956)

IMPLICATIONS OF THE SUEZ AND HUNGARIAN CRISES FOR WESTERN WORLD MILITARY POLICY

The Suez crisis showed that Russia could effectively deter by threatening mass destruction. The Hungarian crisis showed that Western Europe and America together suffer "...an actual physical incapacity to devise and carry out an adequate and purposeful action. Even in full possession of their power, including the power for atomic destruction, the Western powers cannot play all their cards in today's power game--except when their national interests are so overwhelmingly involved that the threat to use the ace in their pack--air-atomic power--becomes justifiable at home and plausible abroad....

"/We must/ build up with all speed the unfinished NATO army in Europe until it appears capable of stopping the advance of Soviet tank divisions without resorting to all-out thermonuclear war; only then can this force adequately supplement the deterrent power or our air-atomic arm and prevent a fateful miscalculation by the Soviet leaders....

"The inevitable---and growing desperate---attempt of the Soviet leadership to keep their empire from disintegrating, can lead to situations of gravest danger for peace---situations in which the Iron Curtain may cease to be a mutually respected rigid barrier, separating the 'legitimate' (except for verbal protests) field of operation of Soviet tank divisions, from the now 'forbidden' West...it will be of crucial importance...that the West should be able to interfere with the 'freedom of action' of Soviet armies by means other than the threat of unleashing an all-out thermonuclear destruction!....

"/It is absolutely necessary/ ...to restore and reinforce the unity of the West, giving to this task the paramount priority among all American political aims.

"The lessons taught by the crisis of November 1956 /even/ if taken to heart, can provide only temporary help in an emergency...the establishment of a 'pseudo-peace,'...in the most rigid form....

"Mankind will not advance beyond the doubtful ideal of a frozen state of...mutual deterrence...if it does

not recognize in these events the demise of the whole concept of 'freedom of action' on the world stage of all 'sovereign' nations pursuing their 'national interests.'

"It is doubtful that this lesson is being properly read..."

(Eugene Rabinowitch, "The First Year of Deterrence," BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957)

AMERICAN STRATEGY: A NEED TO SHIFT FROM TOTAL TO LIMITED WAR

The strategy of complete destruction of the enemy, that of military commanders in World War I and political leaders in World War II, no longer fits the realities of atomic weapons. Limited war (now new; used by Pericles, Belisarius, Wallenstein, Gustavus Adolphus and Frederick the Great) can check Communist expansion yet avoid major conflict. It is, however, expensive and risky (for the other side may not limit a war.)

Limited war should, and may, become American policy. The idea must permeate the thinking of the officer corps.

(B. H. Murray, "Time for a Change," MARINE CORPS GAZETTE, XL, Nov. 1956)

NATO IS BECOMING OBSOLETE; THE ALLIANCE REQUIRES ECONOMIC INTEGRATION

United States actions in Europe were a response to the direct threat of Soviet aggression. Changes in Soviet-Communist tactics require changes in U.S. actions. Whether NATO is any longer useful in its present form is doubtful. We, the U.S.S.R., and the European NATO nations, are all moving toward reliance upon atomic weapons for deterrence. It grows difficult to argue that NATO needs 12 West German divisions. Other NATO nations tend to rely more upon America's capacity to deter the U.S.S.R. with unconventional weapons than upon their own capacity to act.

United States policy should shift to efforts to establish a common West European market, to tying West Germany (now the strongest power in Western Europe) more securely to the West economically, for the Soviet Union might offer reunification of East with West Germany at the price of German neutralization. Military integration of Western Europe along functional lines should be pushed for.

The future of NATO depends increasingly upon non-military justifications. The Soviet Union, however, persists in its fixation against NATO.

(Ross N. Berkes, "United States Policy in Europe," CURRENT HISTORY, Nov. 1956)

WEAPONS AND VULNERABILITIES:

NATO NAVAL STRENGTHS AND WEAKNESSES

Air power increases dependence on sea-borne transport. NATO tasks in the Atlantic would be to keep the seas open and to transport and support land operations. NATO naval forces now undergo combined training. Stand-by organizations to turn shipping around exist in every Western European country. The total of all NATO nations' vessels for shipping is adequate and they would be pooled immediately in war. But there are no forces permanently assigned to NATO Atlantic Command. There is a shortage of maritime aircraft and ships for escort work. The non-NATO submarine fleet greatly exceeds the maximum enemy submarine strength during World War II. "Many political and military leaders...are inclined to take for granted that the seas will, in some way and by some means, be secured for use by NATO and that the reinforcement and supplies...needed for the defense of Europe will somehow be provided." The writer "cannot share this easy optimism."

(Admiral Sir Michael M. Denny, "The Atlantic in a World War--What Does It Mean?" JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION, London, CI, Aug. 1956)

FREE WORLD DEPENDENCE UPON SEA POWER

Sea power (as distinct from naval power) is political and economic strength in peacetime. America requires some 70 strategic materials from across oceans. Britain and Japan are even more dependent upon sea transport. In the Korean war sea power transported the men and supplies; air transport was merely supplementary. Our alliances increase the necessity for adequate sea transport.

(A. E. Sokol, "Sea Power in World History," MARINE CORPS GAZETTE, XL, Dec. 1956)

H-BOMB FALL-OUT

The assertion by Admiral Strauss, Chairman of the Atomic Energy Commission, that the U.S. has means to control fall-out in thermonuclear explosions, is extremely misleading. Only our bombs can be so controlled. In any war some enemy bombs would get through. The statement was intended to lessen public hysteria and worldwide demand to stop testing.

(Editorial, "H-Bombs without Fall-out," BULLETIN OF THE ATOMIC SCIENTISTS, Sept. 1956)

. . . . . .

The "humanitarian" H-bomb defined for Congress by the Chairman of the A.E.C. (fusion type, with little radioactivity) is not what we have been testing. It is presumably what the military will be testing, but it is not what, in war, we will be using on enemy humans. I.e., "clean" bombs for tests, "dirty" bombs for use.

(Ralph E. Lapp, "The 'Humanitarian' H-Bomb," ibid.)

THE BRITISH AND AMERICAN REPORTS ON ATOMIC RADIATION HAZARDS

An analysis of two major reports, one by British scientists, one by American, on atomic radiation hazards.

Both conclude that the hazards at the present rate of testing are negligible. The British insist, however, that internal radiation from radioactive strontium (product of atomic fission which embeds itself in bone tissue and may cause cancer) should be considered an additional undeterminable hazard. Both reports observe that we have very little knowledge of the possible genetic effects of atomic radiations.

(Bentley Glass, "The Hazards of Atomic Radiations to Man--British and American Reports," BULLETIN OF THE ATOMIC SCIENTISTS, XII, Oct. 1956)

DISPERSAL OF NEW PLANTS IS NEEDED

"A Federal Civil Defense Administration research project investigating the 'coincidence of industry and population targets' determined that the desired ground zeros for maximum population casualties and the desired ground zeros for maximizing destruction to 'war-supported industries' coincide to a high degree... A single aiming point...would tend to accomplish both objectives. Specifically, in 17 of the 27 cities, the average would be more than 80 per cent; in 10 of the 27, the average would be more than 90 per cent. In only one area would the coincidence be less than 60 per cent... Destruction of 53 areas would reduce our total production capacity to the level of a fourth-rate world power...

"Our chances of survival can be increased by heeding the advice of the Government to locate our $28-30 billion of new plant and equipment in nontarget areas..."

(Edgar A. Parsons, "Dispersal is Good Defense," ORDNANCE, XLI, Sept.-Oct. 1956)

NEED TO STOCKPILE MILITARY MATERIEL CLOSE TO PROBABLE BATTLE AREAS

A general nuclear war or a quickly-decided peripheral war will be fought with forces and materiel ready before the attack. The military can expect no significant help from industry for at least six to twelve months after attack. All materiel needed in the first twelve months of any anticipated hostilities should be stockpiled as close as possible to the anticipated users. The nation can afford a considerably larger defense budget. We need a real civil defense program, federally directed and staffed.

(Commander Frank J. Roberts, "Power--Not Potential," ORDNANCE, XLI, Nov.-Dec. 1956)

BASES:

U.S. MEDITERRANEAN AIR BASES ARE NOT THREATENED BY AFRICAN AND EASTERN MEDITERRANEAN NATIONALISM

"The Seventeenth Air Force is operating [air bases and installations] in Morocco, Algeria, Tunisia, Crete and Greece, Italy, Libya and Turkey...[providing] important support to the NATO alliance and, indirectly, to friendly nations associated in the Baghdad Pact...

"A Moroccan government in possession of full sovereign powers can be safely expected to be friendly and to feel that the continued presence of U.S. air power is mutually desirable...

"In Greece the Air Force has from the beginning enjoyed the finest relations in dealings both with government officials and with the public... Air base facilities in northern Italy are situated in areas that have the heaviest concentration of Communist voting strength. In spite of this the reaction of the general public to the presence of USAF personnel never has been notably unfriendly...

"While presently Libya is inclined strongly toward collaboration with the West, no assurance can be given that this...is permanent. Libya is handicapped by a shortage of qualified officials and technicians... Large numbers of Egyptian lawyers, educators and trained administrators have been employed. Egyptian publications, popular programs from Radio Cairo, and cultural missions have strongly influenced public opinion...."

(Col. Wilfred J. Smith, "Air Power and World Affairs," AIR UNIVERSITY QUARTERLY REVIEW, VIII, Summer, 1956)

U.S. ARMORED UNITS IN THE PACIFIC HANDICAPPED BUT COMBAT-READY

United States armored units in Korea, Japan and Hawaii are combat-ready, despite problems of rapid personnel turnover disrupting tank crews and lack of training space. (Training in crowded Japan, for example, requires cessation of training while pilgrims

cross the firing areas, and lack of space precludes the use of 90 mm. shot.) Armor in the Arctic can keep moving (at 2 or 3 m.p.h. with gas consumption of 10 gallons per mile per tank) but tactical use seems improbable.

(article series: "Armor in the Far East," "Armor in the Pacific," and "Armor in the Arctic," in ARMOR, LXV, Sept.-Oct. 1956)

TECHNIQUES:

AMERICAN AIRBORNE DIVISIONS IN THE NEAR FUTURE: PROTOTYPE STILL IN PROCESS OF DEVELOPMENT

"The 101st 'Screaming Eagles' Airborne Division has been reactivated as a prototype of things to come in Army ultra-mobility...

"The 101st today is a table of organization, a body of experienced, trained men and a theory, but little more. Most of its equipment must still be delivered. Much of it is only now going into production. Some of it is still on paper.

"At a press conference during the [activation] ceremonies Secretary Brucker made the categorical statement that the 600 aircraft required to lift the division were available now. They're available, so long as SAC or the Navy or some other group doesn't require aircraft at the same time...."

(Seabrook Hull, "101st Airborne Div.: Prototype of Mobility," AMERICAN AVIATION, XX, Oct. 8, 1956)

THE USES OF WAR GAMING

Gaming is "a means of reflecting in the behavior of the system, the assumptions and decisions made about its components and their interactions..." It varies from the map exercise to completely mechanized exercises where strategies are initially specified and computers carry out all the details of play. Its uses are to evaluate systems of performance where decision patterns are an essential part, to structure the interplay of interdisciplinary teams, and to train organizations in procedures involving acting on information fed back from the environment.

("War Gaming," by Frederick B. Thompson, General Analysis Corporation, 710 Wilshire Blvd., Santa Monica, Cal. OPERATIONS RESEARCH SOCIETY OF AMERICA PAPERS*)

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*from the Program, Tenth National Meeting, November 15 and 16, 1956. Copies of papers are not available from the Society. The name and address of each author is given after each abstract.

WEAPONS PROGRAMMING FOR READY FORCES

Armed forces must be maintained, ready to fight short wars or until reserves and production capability can supplement them. How to program weapons for them is the problem, given rapid developments of new weapons at each moment in time.

A technique has been developed for handling variables of production cost, numbers of weapons needed, estimates of the probable rates of obsolescence, effectiveness needed, and budgetary limits.

("Decision-Making in Weapons System Programming for Ready Forces," by Herbert K. Weiss, Chief, Weapon Systems Analysis Department (3360), Northrup Aircraft Inc., 1001 E. Broadway, Hawthorne, Cal. OPERATIONS RESEARCH SOCIETY OF AMERICA PAPER)

POTENTIAL FIRE HAZARDS FROM NUCLEAR EXPLOSIONS CAN NOW BE ESTIMATED

A means has been developed, based on past fire experience and probability analysis derived from it, of estimating the potential fire hazard from nuclear detonations on complex targets.

("Probability Analysis of Thermal Vulnerability to Nuclear Attack," U.S. Naval Radiological Defense Laboratory, San Francisco 14, Cal. OPERATIONS RESEARCH SOCIETY OF AMERICA PAPER.)

ALLIES:

BRITISH AIR FORCE EQUIPMENT NOT FIRST CLASS; AIRCRAFT INDUSTRY SLOW TO ADAPT TO TECHNICAL NEEDS

"Speaking to the Royal Aeronautical Society, [Air Commodore F. Rodwell] Banks described the Royal Air Force as about fourth in quality of equipment among the air arms of the world, ranking after the air force of the U.S., Russia and Sweden.

"The cause of this situation is partly ascribed by Banks to the inordinate time taken to issue an Air Ministry requirement so that the Ministry of Supply can take procurement action. (Banks...for many years...headed engine procurement in the Ministry of Supply). Furthermore the British aircraft industry is not always alive early enough to the implications of the new look in aircraft and fails to prepare itself for the much greater technical needs of the day...

"Banks...asserts that the aim must be to cut lead time [between decision to build and completion of the first plane]---commonly accepted in Britain as being from seven to ten years for a bomber--by half, if an aircraft is to be of any real use to the RAF. This can only be done by better research and experimental

facilities and larger specialist, technical and engineering staffs in the aircraft companies..."

(Anthony Vandyk, "British Aviation Industry Lags Behind U.S." AMERICAN AVIATION, XX, Nov. 5, 1956)

HOW BRITAIN CAN INCREASE HER MILITARY INFLUENCE ON THE U.S.

An effective wartime system requires strong national leadership, that the higher control of civil and military affairs be undivided, and that there be a well understood chain of responsibilities.

In wartime coalition, the political aims of allies are never identical. "All military thinking springs from traditional geographical and historical experience and varies widely in different countries." And the strengths of allies are never equal, and the weaker must follow the policy of the stronger.

In a war "the mere power of the United States would be a decisive factor...One can hardly imagine that the Americans would allow their thinking to be materially deflected, even by the United Kingdom."

What can Britain do to increase her influence? She should make her own system of control as close to perfect as possible; she should make her military forces first class; and she can group with other Western coalition allies who collectively might exert an influence.

(Lieutenant General Sir Ian Jacob, "The High Level Conduct and Direction of World War II," JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION, London, CI, Aug. 1956)

WEST GERMAN AIR FORCE TO BE TACTICAL, TO SUPPORT NATO GROUND UNITS IN CENTRAL EUROPE

"The new /German/ Air Force is to be strictly a tactical force...Present plans call for a total of twenty wings, eight of which are to be fighter-bomber wings, four fighter-interceptor wings, three all-weather fighter wings, three tactical reconnaissance wings, and three transport wings...

"For the time being most /aircraft and equipment/ will be provided by the United States...By 1960 its materiel needs will have to be met largely out of German funds...

"Contrary to reports in the American press...there has been a dearth of qualified volunteers /for pilot service/. As of July 1955 only 12,000 applications had been received by the Defense Ministry, most of them Luftwaffe veterans too old for extended duty or other-

wise ineligible.../Some 80,000 men are needed, including 2600 pilots./

"In terms of NATO global planning, the German Air Force is to become a major component of the tactical air forces in Europe...The strategic planning that prompted the arming of West Germany envisioned the combat mission of the German Air Force to be the providing of tactical air support to NATO forces in Central Europe..."

(Lewis J. Edinger, "Concept of the West German Air Force," AIR UNIVERSITY QUARTERLY REVIEW, VIII, Summer, 1956)

FRANCE

Defeat in Africa will probably cause France to reduce her defense load under NATO.

(Edward W. Fox, "France After NATO," CURRENT HISTORY, Nov. 1956)

PROSPECTS FOR NORWAY, DENMARK, AND POSSIBLY ICELAND, ARE A SHIFT FROM NATO TOWARD ALL-SCANDINAVIAN NEUTRALISM

Before World War II all the Scandinavian nations were neutral. Finland dares not associate with the West and cause Soviet hostility. Sweden seeks alliances with the other Scandinavian countries, outside of Great Power blocs yet strong enough to perhaps deter aggression. Norway and Denmark are part of NATO but baffled in attempts at independent policies in organizations used against the Communist bloc. Iceland feels her national character threatened and her economy disrupted by American troops; her legislature has called for American withdrawal. In Norway and Denmark neutralism is increasing. Some kind of all-Scandinavian alliance is likely to be substituted for NATO.

(John H. Wuorinen, "Neutralism in Scandinavia," CURRENT HISTORY, Nov. 1956)

LATIN AMERICAN FORCES ARE HAMPERED BY LACK OF MONEY

Latin American countries will probably reduce their purchases of European aircraft and aircraft parts. "...finance is the number one problem...the Latin American air forces have fared far worse in U.S. military assistance programs than their European counterparts. During the period 1950 through 1955.../Latin America received/ less than 2% of the total aid given to the rest of the world....

"It will be three or four years before the Pentagon will allow modern jets to be delivered to Latin America..."

(Anthony Vandyk, "Latin America's Big Problem: Dollars," AMERICAN AVIATION, XX, Dec. 3, 1956. On the inadequacy of U.S. aid to Latin America see also Simon G. Hanson, "The Good-Partner Policy," INTER-AMERICAN ECONOMIC AFFAIRS, 10, Autumn, 1956, p. 37 of this journal.)

THE USSR AND COMMUNIST CHINA:

SOVIET MILITARY THINKING IS NO LONGER STAGNANT

"It may be said with certainty that even before Stalin's death the leaders of the Soviet armed forces had recognized that, as far as theory was concerned, they were in a state of stagnation, due to new developments in military affairs and the dogmatization of the conventional principles of the past.

"The new trends in doctrine were revealed only after Stalin's death...In September 1953 an article by Major General N. A. Talensky was published [in Voennaya Mysl] under the title 'The Question of the Nature of Laws in Military Science.' The author... was the first to cast doubts on the basic thesis of Soviet military theory, namely that Marxist military science has a monopoly of originality...

"From that time the Soviet military press and official Army newspaper Krasnaya Zvezda began regularly to give quite objective accounts of the views of the West, chiefly America, on the application of tanks and aircraft and the actions of troops when atomic weapons are being used...At the same time articles began to appear describing atomic and nuclear processes and discussing questions of atomic defense...

[Marshall Sokolovsky, in the spring of 1955, emphasized the need for preparing against surprise atomic attack.]

"[His] statements...officially promote the surprise factor to one of supreme importance for the Soviets too. At the same time they remove Soviet theory from its isolation...and bring up the question of the need for waging war as a preventive blow..."

(N. Galay, "Soviet Military Thinking Since Stalin," reprinted from BULLETIN OF THE INSTITUTE FOR THE STUDY OF THE USSR, Munich, June, 1956, in ARMY, VII, Sept. 1956)

SOVIET NAVAL STRENGTH

"The Soviet naval build-up is the most significant development in Soviet grand strategy since World War II...."

The Russian Navy has destroyed our monopoly of seapower. "The Soviet fleet is built around an unprecedented submarine force, plus cruisers, a large proportion of destroyers and a strong shore-based naval air arm." Soviet submarine strength is estimated at 400. (At the beginning of World War II Germany had only 57.) It is estimated that Russia has 24 cruisers, 6 more under construction, about 150 destroyers of which 50 are post-World War II, and 4,000 naval planes.

The purpose of such a fleet is to deny the western world control of the high seas and approaches to the USSR. Russian strategy is based on awareness of the Free World's dependence on the "Oceanic Confederation."

"The same kind of fleet...is appropriate for the job of protecting Communism's sea flank in Asia...

"The simple fact that Russia has, at great effort, created a large Navy... /makes it possible to deduce that/ Soviet strategic thought may well have recognized that the margin of victory /in total war/ may depend on the combat capabilities of fleet units at sea...not pin-pointed and destroyed in the initial thermonuclear exchange. Missile-launching naval vessels, particularly submarines, would, in such a situation, play a critically important role...."

The West has tended to watch the skies. We must reawaken to our dependence on seapower.

(Col. J. D. Hittle, "Why Russian Seapower," MARINE CORPS GAZETTE, XL, Nov. 1956)

SOVIET FIGHTER AIRCRAFT

"Russia's delta aircraft will make formidable fighters....

"Expert opinion of the...aircraft...can be summarized thus: The Russians now have flying delta aircraft capable of horizontal speeds in excess of 1,000 mph and of climbing speeds of some 35,000 feet per minute. These aircraft are currently in prototype form and by the time they reach production status they may well be able to better this performance...

"Although the Russians have been very late in entering the delta field...Soviet designers have been keeping close tabs on what has been going on...in the western world. They did not gain very much from German research...Much of the design work...seems to be original...."

(Anthony Vandyk, "Those Russian Delta Fighters are Good," AMERICAN AVIATION, XX, Oct. 8, 1956)

MAO TSE-TUNG'S THEORY OF WAR BY ATTRITION

"Mao is the most distinguished of Communists who have given military theory their concentrated and continuous attention...Essentially his theories of war are generalized from his own experiences as a revolutionary...

"The problem towards which he directed his attention... was this: how can a nation which is not industrialized defeat a nation which is?...

"His fundamental belief is that only those who will admit defeat can be defeated... 'The people are like water and the army is like fish,' [Mao wrote] 'With the common people of the whole country mobilized, we shall create a vast sea of humanity and drown the enemy in it...' Mao holds that military salvation flows from political conversion. But note: conversion takes time. So Mao's military problem was how to organize space so that it could be made to yield time. His political problem was how to organize time so that it could be made to yield will... Mao's real military problem is not that of getting the war over with, the question to which Western military thinkers have directed the greater part of their attention, but that of keeping it going...

"Protracted war, he notes, must...pass through three stages... [1] 'strategic defensive' [2] ...stalemate, a period of preparation for [3] ...a shift to the offensive...

"Fundamental to all else, Mao says, is the belief that countries with legislative bodies simply cannot take a war of attrition, either financially, or, over the long run, psychologically...."

(E. L. Katzenbach, Jr., "The Politico-Military Views of Mao Tse-tung," MARINE CORPS GAZETTE, XL, Oct. 1956)

COMMUNIST CHINA'S ARMED FORCES

Communist China's air force is almost entirely Russian-equipped. It is largely a MIG fighter force. The navy is a conglomeration of a few old destroyers, PT boats, and thousands of coastal junks. The Army is 2,500,000 infantry men. It lacks communications; its generals know nothing about tank use; it is slow to shift its artillery. It is fascinated by its new Russian hardware but all its materiel comes over the long Trans-Siberian railroad, and it will face the problem of weapon obsolescence. It fights with a minimum of paper work and a maximum of singing mass propaganda. Its generals are calloused to high casualties. It is a hard, tough armed horde which

will survive in defeat. But its leaders are strategically still unschooled by American standards, and in Korea it was beaten back again and again by a smaller but stronger military force.

(Lt. Col. Robert B. Rigg, "Red Army in Retreat," CURRENT HISTORY, Jan. 1957)

2. ECONOMIC STRENGTHS, WEAKNESSES, AND TRENDS

AMERICA AND THE FREE WORLD:

AMERICAN ECONOMY READILY ADAPTABLE TO DEFENSE PRODUCTION SHIFTS

Almost all of our important manufacturers either have produced or are producing military items. (Current inventory in aircraft industry, for example, amounts to 145,000 machine tools, 60% metal cutting or forming, with an acquisition value of $1,400,000,000.) "Approximately 36% of America's scientific research and development is directly concerned with national defense... It is fair to assume that Russia's may be close to total. In England 60% of the nation's research funds are being devoted exclusively to the military field...

"[On the other hand] United States industry is currently employing about six times as many science graduates as Great Britain, and its expenditures on civil research and development are far in excess of those of any other nation.

"[The trend of U.S. industry is toward consolidation. This] has tended to remove the serious handicap of undue specialization of individual businesses in peacetime. The larger corporation...brings about a wider scope of manufacturing interests and experience and creates an organization which somewhere in its varied production divisions offers one or more services to the military. The effect is an invaluable ordnance contact in peacetime, which filters familiarity with Government procedures and defense awareness through all the associated units...."

(Francis Walton, "A New Defense Outlook," ORDNANCE, XLI, Nov.-Dec. 1956)

EFFECTS OF WAR THREATS ON THE U.S. ECONOMY ARE NOW TESTABLE IN ADVANCE

A model of the U.S. economy has been designed which handles the parameters of population, labor force, Gross National Product, output by economic sector, wartime expansion coefficients, input-output ratios, labor productivity by sector, and capital coefficients by sector. It has been coded for electronic computer

operation. It can compute varying requirements representing alternative production strategies. Thus it is possible to closely simulate actual economic mobilization or partial mobilization, for planning.

("A Mobilization Model for Strategic Gaming," by C. Darwin Stolzenbach, Operations Research Office, 7100 Connecticut Ave., Chevy Chase 15, Md., and John H. Roseboom, Jr., Booz, Allen & Hamilton, 135 S. LaSalle St., Chicago 3, Ill. OPERATIONS RESEARCH SOCIETY OF AMERICA PAPER)

POPULATION STRENGTH OF THE WEST

"The Western alliance has a considerable preponderance in manpower over the Soviet Union--not the other way around, as is so often taken for granted...(The countries of Eastern Europe do not effectively add to Soviet manpower and are not likely to do so in the near future. The structure of the Soviet economy has now become so similar to that of the West that its former advantage--a large peasant population which could be put into uniform without endangering industrial production--has all but disappeared.)...."

(Eugene Rabinowitch, "The First Year of Deterrence," BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957)

EXTENT OF U.S. ECONOMIC AID

U.S. total aid to foreign countries (grants, and long and short-term credits) exceeded $5,000,000,000 during the fiscal year 1956. It was up 6% over fiscal 1955. It was about 20% of the total dollars received by others from the U.S.

(E. S. Karber, "Major Shift by Area in Foreign Aid in Fiscal 1956," SURVEY OF CURRENT BUSINESS, 36, Oct. 1956)

DOLLAR GAP HAS DISAPPEARED

The flow of U.S. money abroad (government and private) has not fallen off since early 1954. During the second and third quarters of 1956 it continued at an even greater volume (around $26,000,000,000). This is part of a general increase in investments by all major foreign countries.

The balance of payments continued to be substantially in favor of foreign countries.

("Second Quarter Balance of Payments Reflects Further Expansion in International Business," SURVEY OF CURRENT BUSINESS, 36, Sept. 1956, and "Third Quarter U.S. Balance of Payments---Rise in Exports and Foreign Investments," ibid., Dec. 1956)

HIGH PRODUCTIVITY OF U.S. LABOR

In U.S. exports and imports other than those which reflect directly the presence or absence in this country of certain natural resources, the very high productivity of American as compared to foreign labor plays a decisive role.

(A report on a continuing investigation of the structural basis of the trade relationships between the U.S. and the rest of the world.)

(Wassily Leontief, "Factor Proportions and the Structure of American Trade: Further Theoretical and Empirical Analysis," REVIEW OF ECONOMICS AND STATISTICS, XXXVIII, Nov. 1956)

CHANGE IN AMERICAN MANAGEMENT: ENGINEERS REPLACING ENTREPRENEURS

More and more American executives are engineers. "The nature of modern industry makes competent technological representation near the top level of management indispensable." (20 per cent of all M.I.T. graduates are managers; 40 years ago it was only 10%. Among older alumni it runs to 50%.)

(John B. Rae, "Engineers, Executives and Education," TECHNOLOGY REVIEW, 59, Nov. 1956)

AMERICAN PRODUCTION WEAKNESS: THE CLERK

Only a sharp increase in emphasis upon systems, automation, and long-range planning can reduce the need, growing acute, for office workers. If present needs continue to grow the clerical worker will be as scarce in 1975 as engineers are today.

(A theme stressed by many speakers at the American Management Association's annual conference of some 800 office administrators. "American Management Association Stresses Automation, Systems, to Offset Personnel Shortage," OFFICE MANAGEMENT, XVII, Nov. 1956)

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Many American business men are initially disillusioned after converting to electronic equipment and the newest methods of quantitative analysis. Many installations have been poorly planned and oversold. Well planned systems provide faster and more accurate services and will ultimately save money.

(Paul Kircher, "Management Planning and Control--What Next?" MANAGEMENT SCIENCE, 3, Oct. 1956)

BRITAIN'S PROSPECT IS CONTINUED INFLATION

British prices continue to rise. This is hurting her export sales. To check inflation the Government has raised the Bank of England interest rate to 5.5%, cut Government spending, cut investments in nationalized

industries, and upped the taxes on consumer goods. The Cabinet is murmuring of the necessity to cut defense spending. The Department of Scientific and Industrial Research, however, insists that Britain must invest in and develop automation if it is not to fall behind.

Britain speculates about the weaknesses of the Commonwealth but the other members continue to value it highly. (For example, there has long been a demand for subordinate commissions and councils within the Commonwealth organization.)

Britain has proposed a common market for OEEC and Schuman Plan countries.

(Alzada Comstock, "Precarious Security in Britain," CURRENT HISTORY, Nov. 1956)

THE WEST GERMAN AIRCRAFT INDUSTRY IS BACK IN OPERATION

"The West German aircraft industry is now well on its way to becoming an important sector of Western Europe's air arsenal as the result of the award of large-scale production contracts by the Bonn government....All... orders are to be executed within the next four years."

(Anthony Vandyk, "West German Aircraft Industry Enters New Era," AMERICAN AVIATION, XX, Sept. 24, 1956)

THE USSR AND COMMUNIST CHINA:

U.S.S.R. IS BUILDING A CENTRAL ASIAN POWER COMPLEX

The area around Lake Baikal, Irkutsk, will become a major industrial center. It has coal, iron ore, tin, and salt deposits, timber, and strategically it is relatively invulnerable. It is close to China yet remote from U.S. bases off China. In 1955 it was linked to China by a new rail line through Outer Mongolia. China will need a large volume of Soviet industrial products for many years. The Sixth Five Year Plan schedules great increases in Soviet exports of such goods to China. Development of the Baikal region will halve the distance they must be shipped.

(J. P. Cole, "A New Industrial Area in Asiatic U.S.S.R." THE GEOGRAPHICAL JOURNAL, CXXII, Sept. 1956)

SOVIET PRICES

Soviet prices seem so out of gear with normal expected relationships between supply and demand of different goods and services that there is reason to question whether they can be considered to have much economic meaning.

Ruble: dollar price ratios vary from 4:1 to 91:1 on foods, from 3:1 to 63:1 on manufactured goods. Assuming it makes sense to make comparisons, average earnings in the USSR in 1950 were from 12 to 18% of those in the U.S. and in 1954 from 16 to 23%.

(Norman M. Kaplan and Eleonar S. Wainstein, "A Comparison of Soviet and American Retail Prices in 1950," JOURNAL OF POLITICAL ECONOMY, LXIV, Dec. 1956. The lack of normal relationships between Soviet prices and supply and demand of different goods and services was also noted earlier by Colin D. Campbell and Rosemary G. Campbell, in "Soviet Price Reductions for Consumer Goods, 1948-1954," AMERICAN ECONOMIC REVIEW, 45, Sept. 1955)

SOVIET PRODUCTION: "BUSINESS CYCLE" EFFECT INDUCED BY CENTRAL CONTROL

The Soviet State depends on centrally controlled and administered production quotas, with high bonus rewards for its managers, to maintain and increase output. Managers must extract every bit of production in order to meet their quota; their rewards for success may be promotion and up to double their salary; for failure, demotion and loss. But when a given quota is exceeded the ratchet clicks into place just under the new record and the manager must work even harder next month.

All of this leads to "storming," or the uneconomic rush at the end of the month to schedule easy orders, delay repairs, and coerce employees into working overtime, all in order to meet quotas and cash in on incentives. The more intense the storm at the end of the one month the longer the delay for rest and repair at the beginning of the next month which results, all over again, in a still greater effort at the end of that period. Storming in one interdependent industry results in poor supply in another and more storming--the total in a "business cycle" of rising and falling effort controlled by an arbitrary monthly accounting date.

Yet, despite managerial deception and high turnover together with these material diseconomies, the Soviet government is satisfied with its incentive system. High targets and high rewards elicit strenuous efforts from managers.

(Joseph S. Berliner, "A Problem in Soviet Business Administration," AIMINISTRATIVE SCIENCE QUARTERLY, 1, June, 1956)

--COSTS DISTORTED

Soviet depreciation charges fail to provide anything resembling accurate indications of costs. Understatements in the values of fixed assets are compounded with errors in determination of rates. The result is that what is charged against output as depreciation is more an arbitrary levy than a careful estimate.

However little concern the Russians show to make depreciation charges accurate, the charges are always a category in their accounting, (always explained as a measure of cost.)

It is impossible (lacking concrete data) to judge how serious the distortions are. Many Russian accountants and economists have said they are serious and that it is imperative that Russia improve its valuation of assets and determination of depreciation rates.

(Robert Campbell, "Accounting for Depreciation in the Soviet Economy," QUARTERLY JOURNAL OF ECONOMICS, LXX, Nov. 1956)

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After 39 years of efforts to specify the legal and administrative forms of Soviet industrial units, the USSR has achieved no particular solutions to the problem of how to combine centralized overall planning with operational unit independence.

(A. Drucker, "Soviet Corporations," INTERNATIONAL AND COMPARATIVE LAW QUARTERLY, 5, Oct. 1956)

CHINA'S ECONOMIC GROWTH

Communist China apparently has succeeded in directing 20% of her total output into basic capital construction during her first Five Year Plan. The quality of goods has deteriorated, industrial accidents are frequent, and the human costs in the depressed standard of living and in suppression of liberties are great, but these matter little to China's government.

Per capita output is still very small. China is still very far from its goal of industrial self-sufficiency (40% of its machinery must be imported; it cannot manufacture precision or heavy machines; it cannot product high-grade alloy steels; it has no organic synthetic chemical industry; radio engineering production has barely started; it is lagging in oil production and refining.)

(Yuan-Li Wu, "Communist China's Economic Challenge," CURRENT HISTORY, Jan. 1957)

CHINA'S PROSPECTS IN IRON & STEEL

China's iron ore reserves are some 4,338,000,000 tons. Coal reserves are large. Scrap supply is inadequate. Other important ingredients for steel production are lacking. A vast fund of experience and knowledge exists, from China's near past. Russian experts are available. The goal of 6,000,000 tons of steel for 1958 is not likely to be reached. Iron and steel production will create transportation bottlenecks.

Iron and steel production growth already achieved could hardly have been achieved other than under the economic system now used in China.

(Muzaffer ErSelcuk, "The Iron and Steel Industry in China," ECONOMIC GEOGRAPHY, 32, Oct. 1956)

3. SCIENTIFIC AND TECHNICAL POTENTIAL

EVALUATION OF THE GENEVA CONFERENCE ON ATOMIC ENERGY: THE NATIONS RANKED

The Director of the Dutch-Norwegian Atomic Energy Research Establishment, Special Consultant to the Secretary-General of the United Nations, concludes that: (1) the U.S. has a commanding lead in atomic energy, and (2) there is still no efficient way to jack other nations up to the level of the U.S. in atomic technology.

Nations already having the necessary technical background, personnel, institutions, and capital gained few new answers from the Geneva conference. Nations with a high degree of general technical development, personnel, and institutions, but where no practical studies in atomic energy were being undertaken, gained much. Undeveloped or semideveloped nations lacking all necessary elements gained nothing and were made aware of the size of the technological gap.

(Gunnar Randers, "Post Geneva Observations on International Atomic Energy Cooperation," ATOMIC INDUSTRIAL FORUM REPORT No. 7, COMMERCIAL AND INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY)

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In the whole spectrum of atomic technologies, the U.S. is in the lead but Russia is not far behind. Britain, certain soon to have energy needs beyond her conventional fuel supply, has standardized atomic power reactors and will probably produce economic atomic power before either the U.S. or the USSR. But both the U.S. and the USSR are pushing reactor research over a more varied range of possibilities and will no doubt in the long run develop more efficient reactors.

The Netherlands, Switzerland, and Canada, are all adding significantly to reactor technology.

(Walter H. Zinn, "Post Geneva Technologies in Atomic Energy," ATOMIC INDUSTRIAL FORUM REPORT No. 7, COMMERCIAL AND INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY. The same points are made by W. Kenneth Davis, Shields Warren, and W. L. Cisler, in "Some Peaceful Uses of Atomic Energy," SCIENTIFIC MONTHLY, 83, Dec. 1956)

INDUSTRIAL ATOMIC ENERGY DEVELOPMENTS IN THE FREE WORLD: SWITZERLAND

Switzerland lags in atomic developments. She has no uranium, abundant hydraulic resources; there is little military compulsion; the economy is not sufficiently centralized and there is a reluctance to spend sufficient money to train specialists in these fields. Atomic energy developments are left to private entrepreneurs.

(Rudolph Sontheim, "Atomic Energy in Switzerland," ATOMIC INDUSTRIAL FORUM REPORT No. 12, ECONOMICS AND TECHNOLOGY FOR THE ATOMIC INDUSTRY)

FRANCE

France is rich in atomic raw materials but lacks trained personnel. France has decided to move directly to atomic power production. She has effected a network of international agreements concerning atomic techniques (European Atomic Energy Society, EURATOM, and bilateral agreements with the U.S., Britain, India, Israel's A.E.C., and Sweden). France hopes to be producing atomic power economically by 1959.

(J. Horowitz, "Latest Developments in France's Atomic Program," ibid.)

SWEDEN

Sweden has no coal nor oil, and will soon be using all of h r water energy sources. She has uranium. She is short on trained personnel. Her Atomic Energy Company is operating research reactors and designing industrial ones. She expects to build six industrial reactors within the next decade.

(Harry Brynielsson, "The Swedish Atomic Energy Program," ibid.)

THE NETHERLANDS

The Dutch are training research personnel and building research equipment. Their bilateral research agreement with the U.S. is very useful. They do not expect to be able to use U.S. atomic industry because of the limits and conditions under which U.S. atomic fuel is made available.

(Henri Polak, "Planned Activities Under the U.S.-Netherlands Bilateral Agreements," ibid.)

WEST GERMANY

Germany has little uranium. It is not doing any research on military uses for atomic techniques. It has bilateral agreements with Britain and the U.S., a Ministry for Atomic Affairs and an advisory Atomic Commission. It is largely leaving atomic industrial technology to private entrepreneurs. It is a decade behind other European nations.

(Wilhelm Grau, "Atomic Policy in the Federal Republic of Germany," ibid.)

JAPAN

Japan has no atomic raw materials. She is considerably behind many nations in technology. But demand for electricity is running away from conventional energy sources. Demand for radioactive isotopes for industry has accelerated greatly. Japan will operate its first reactors in 1957.

(Atsushi Ohya, "Prospects for Atomic Energy Development in Japan," ibid.)

U.S. MUST PRODUCE REACTORS

A nation which must lead the world must also lead in atomic production of commercial power. In many nations nuclear power would be competitive with or cheaper than conventional power (although in the U.S. conventional power is very inexpensive.) We must offer our most advanced reactors to nations needing them, while continuing our domestic program of further research for further economies.

(Harold S. Vance, member of the U.S. Atomic Energy Commission, "International Nuclear Power--A Challenge to the United States," ibid.)

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"The underlying conflict between the world's hopes... /of nuclear power/ and the economically motivated caution of /the U.S./ democratic economy /where coal is abundant and costs only $8 a ton/ is...the crucial problem before the United States."

The U.S. should build plants abroad. U.S. reactors use enriched uranium, for which the U.S. is almost the sole source. The world wants natural uranium reactors because it wishes to avoid total dependence upon the U.S. for fuel. America could use the UN International Atomic Energy Agency as enriched uranium fuel "banker."

Nuclear power will not make manufacturing much cheaper (fuel plus purchased energy costs average only 4% of total manufacturing costs.) Competition will be as necessary a stimulus then as now.

(Michael Michaelis, "Profits from Nuclear Power," HARVARD BUSINESS REVIEW, 34, Sept.-Oct. 1956)

U.S. FAR AHEAD, RUSSIA SECRETIVE, IN REACTOR FUEL PROCESSING TECHNIQUES

In a frontier area of atomic technology, chemical processing of irradiated fuels, the Russians, at Geneva, were not notably eager to share their knowledge. The U.S. seems to be far in the lead of the rest of the world in this difficult sector.

(Floyd L. Culler, "Chemical Processing of Irradiated Fuel Elements," ATOMIC INDUSTRIAL FORUM REPORT No. 7, COMMERCIAL AND INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY)

RADIATION CHEMISTRY: SOVIET ADVANCES, BUT U.S. AHEAD

Concerning radiation chemistry, the Russians have been working in it for a long period, exploring some areas in which the Western nations' scientists have not interested themselves. The Russians have put much into trying to produce bulk chemicals by radiation techniques.

The French are making good progress in radiation chemistry generally.

The U.S. seems to be ahead of other nations.

(Bernard Manowitz, "Radiation Chemistry at Geneva," ibid.)

INDUSTRIAL USES OF RADIOACTIVE ISOTOPES: LEADING NATIONS' DEVELOPMENTS COMPARED

In industrial and medical uses of radioactive isotopes the Russians are as advanced as the U.S., Britain, and France (in one field, their use in the control process in iron and steel production, much in advance. The Western nations have known of these techniques but have not applied them because of danger of radiation to workers. Russia seems to regard this as minor.)

Japan is astonishingly advanced in isotope use techniques.

(Paul C. Aebersold, "Industrial Uses of Isotopes," ibid.)

ATOMIC CLEARING HOUSE

The Statute of the UN International Atomic Energy Agency indicates the organization is looked to to: (1) buy or receive atomic products and equipment from the have nations, and distribute them to the have-not; (2) police all but the U.S., USSR, and Britain so that

materials furnished are not diverted into atomic weapons. This is not expected to create any world-wide atomic bonanzas.

(William R. Frye, "The Atomic High Road," BULLETIN OF THE ATOMIC SCIENTISTS, XII, Dec. 1956)

NO BREAK THROUGH FROM H-BOMBS TO H-REACTORS

Thermonuclear reactions (like those going on in the stars and the sun), if controlled, would provide infinite resources. The problem is how to confine the fuels without vast energy loss. It will be quite some time before we or Russia can work out thermonuclear reactors (fusion-type energy producers.) We must continue work to make atomic reactors economic.

(Igor Kurchatov, Russian physicist, "Controlled Thermonuclear Reactions," BULLETIN OF THE ATOMIC SCIENTISTS, XII, Sept. 1956; and Edward Teller--known as "father of the H-bomb"--also titled "Controlled Thermonuclear Reactions," ibid.)

FINDINGS FROM ARTIFICIAL SATELLITE WILL AFFECT INTERNATIONAL RELATIONS

The artificial satellite will yield information on the earth's magnetic field, density of electrons in space, the sun's short wave radiations, and the outer ionosphere. These will probably have effects on international relations (e.g., what we learn about the outer ionosphere affects what we can do with long range radio communications.)

(James A. Van Allen, "The Artificial Satellite as a Research Instrument," SCIENTIFIC AMERICAN, 195, Nov. 1956)

LONG-RUN SOLUTIONS TO POPULATION PRESSURES

"Food in the long run is a matter of power--power...to make fertilizers and bring world yields up...If and when rising population gets beyond what this can supply, and also the increased area of the Amazon and Congo and of the semi-arctic, there are possibilities of photo-synthesis. There have been extensive experiments in several countries on the production of foodstuffs for animals in the form of algae, using energy from the sun.../Also,/ we can fall back on straight chemical synthesis of basic foodstuffs from the air or with the carbon from limestone, supplemented by food from animals grown on these foods and some neutral vegetables for sauce and seasoning. The long-term problem is soluble."

(Sir George Thomson, Nobel physicist, "The New Industrial Revolution," BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957)

SOVIET SCIENTISTS' RESEARCH NOW FREE--

Soviet scientists are now allowed freedcm of research, particularly in physics. Money for research is always available; prestige and salaries are high.

(R. E. Marshak, "Scientific Research in the Soviet Union," SCIENCE, 124, Dec. 7, 1956)

---AND PRODUCTIVE

Russian scientists may read what they want. Laboratories equal the West's. Soviet scientists are of the highest quality, and are doing much in pure research. Expansion into high-energy physics, however, is quite recent.

(V. F. Weisskopf, "International Conference on High-Energy Physics," BULLETIN OF THE ATCMIC SCIENTISTS, XII, Sept. 1956)

ECONCMIC AND SOCIAL AFFECTS OF AUTCMATION

Automation, in America, does not cause critical unemployment; nor is there resistance to it. (Advance planning and close study of opportunities to transfer keep unemployment small. Temporary suspensions during conversion are common.)

Trends: demands for goods and services will increase far more rapidly than will the labor supply. Young people will be in school longer because more training will be required. The skills per worker will increase and labor will beccme professionalized. "Information autcmation" will abolish most of what we now call supervision (most of which is responsibilities for writing or telling others.)

(Dr. Herbert E. Krugman to the American Psychological Symposium. "How Automation Will Affect the Labor Force," MANAGEMENT REVIEW, XLV, Nov. 1956)

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"...in business.../electronic ccmputers/ will result in the same kind of reduction in drudgery in the world of clerks that the bulldozer brings in that of navvies.

"...pretty nearly everything which does not demand the full faculties of a man can, or soon will, be done better by a machine. The rows of machine-minders in the factories of today will disappear...The thing will work itself, taking its orders frcm a ccmputer... Machine-minders will be replaced by gangs of trouble-shooters, skilled in diagnosing and repairing the faults of machines which have shut themselves down or started to turn out scrap. This will be a highly

skilled and absorbing job in which the machine-doctor can take the same pride in his work that the human doctor does in his...."

(Sir George Thomson, Nobel physicist, "The New Industrial Revolution," BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957)

AUTOMATION IS NOT EXPENSIVE, NOR DOES IT REQUIRE LARGE-SCALE OPERATIONS

Automation, often confused with mechanization, incorporates feedback and servo-mechanisms to maintain control over production.

It does not require large capital outlays. Many small manufacturers are automating with excellent results on "peanut budgets."

(The author is Head of Automation Development, Department of Industrial Engineering, Pennsylvania State University. Chester Linsky, "The Small Manufacturer's Stake in Automation," TOOLING AND PRODUCTION, XXII, No. 8)

U.S. NEGLECTING RESOURCES FOR TEAM RESEARCH

Research by interdisciplinary teams is needed. The Soviets seem to be using team research resources more than the U.S.

In the administration of team research in scientific and technical work traditional methods of administration are often inappropriate. Training in research organizations is needed for administrators, for scientists who are administrators, for project supervisors, and for bench scientists.

(George P. Bush and Lowell H. Hattery, "Teamwork and Creativity in Research," ADMINISTRATIVE SCIENCE QUARTERLY, I, Dec. 1956)

LINEAR PROGRAMMING OF AIRCRAFT AND FREIGHT TRAIN LOADS

Techniques have been developed for linear programming of commercial aircraft, to maximize payload, and for optimum programming of railway freight train movements. Both have military as well as industrial uses.

(Allen R. Ferguson and George B. Danzig, "The Allocation of Aircraft to Routes--An Example of Linear Programming Under Uncertain Demand," MANAGEMENT SCIENCE, 3, Oct. 1956; and A. Charnes and M. H. Miller, "A Model for the Optimal Programming of Railway Freight Train Movements," ibid.)

PART III

THE GOALS, PROCESSES, AND POLITICAL SUBSTRUCTURES OF FOREIGN POLICIES

AMERICA AND THE FREE WORLD:

THE DIFFICULTIES OF PUBLIC DISCUSSION OF MILITARY POLICY

National security issues endanger the democratic process of discussion. They are highly technical and beyond the understanding of most citizens; some of the data necessary for public judgement must be kept secret; and the stakes are so great that judgement is paralyzed and the public falls back upon the experts.

To remedy this the military leaders must communicate with the molders of public opinion; citizens must be trained in military affairs so they can explain and interpret in universities, communications media, and to and through interest groups. Military leaders should increase their efforts to understand political matters in order to better articulate the alternatives and problems of military policy.

There has been an increase in recent years in the number and influence of quality media and of the "attentive public" (the small minority motivated by general interest and weighing alternatives rationally, as distinct from interest group opinion and mass opinion which merely sets the "mood" of foreign policy.)

(Gabriel A. Almond, "Public Opinion and National Security Policy," PUBLIC OPINION QUARTERLY, 20, Summer, 1956)

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The election controversy between Presidential candidates over the cessation or continuation of H-bomb tests, showed the incapacity of the public and political leaders to evaluate scientific and technical arguments and the inability of scientists in political life to separate their scientific opinions clearly from their preferences among political parties.

What is true of discussion of the H-bomb is true of numerous other scientific problems requiring public understanding and assent or dissent, e.g., X-ray radiation, air pollution, and explosive population increases.

(Editorial, "The Lessions of a Fateful Month," BULLETIN OF THE ATOMIC SCIENTISTS, XII, Dec. 1956)

A NOTE ON THE VALIDITY OF NEWSPAPER REPORTAGE

The transfer of information from its discovery by the U.S. Senate to a newspaper page for discovery by the citizenry seems to involve at least the following obstacle course: (1) subcommittee hunger for publicity (45 minutes posing for pictures before hearings; the development of several "themes"), (2) choice by the reporter of conflicting data, (3) reinterpretation by guesswork or independent research, (4) the reporter's notions of his paper's policies, (5) consistency with his previous stories, (6) the long-range value of the story, and (7) space needs of the paper.

(Ken Macrorie, "The Process of News Reporting," ETC., XIII, Summer, 1956)

SCIENTISTS' INFLUENCE IN AMERICA

During the last 10 years a scientists' movement has developed in America. Anxious, politically alert, desiring original and courageous action to prevent the harmful use of the achievement of science; members of this group transmit to America's leaders "the awareness which their scientific experience has given them." They are free from the technocratic fringe of left-wing scientism. They have "never had a program which would make rulers out of scientists." They "accepted the general structure of government and of scientists in it... The Federation of American Scientists...and the BULLETIN OF THE ATOMIC SCIENTISTS are the products and generators of this movement....

"Many senators and Representatives, especially those on the relevant congressional committees, turn an interested and sometimes even hospitable ear...The Executive Branch...although it seldom obeys, listens with discomfort and respect... In vital matters of national policy, the support of scientists was sought by both of the contending parties [in the 1956 Presidential election]."

(Edward Shils, "Freedom and Influence: Observations on the Scientists' Movement in the United States," --based on a paper presented to the International Study Group on Academic Freedom sponsored by the Committee on Science and Freedom, Congress of Cultural Freedom, Paris, Aug. 1956--BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957)

CIVIL-MILITARY JOINT PLANNING IN U.S. IS EFFECTIVE AND PROBABLY PERMANENT

The need for competent civil authorities to participate responsibly in the future planning of military strategy should have been apparent to the United States in 1898, but not till 1950 (by the National Security Council and arrangements for liaison between military chiefs-of-staff, the armed service Secretaries, and the Secretary of State) was it achieved. It is hoped that it is permanent.

("Civil-Military Relations: Historical Case Studies," three papers presented at the joint session of the American Military Institute and the American Historical Association, III, Louis J. Halle, "1898: The United States in the Pacific," MILITARY AFFAIRS, XX, Summer, 1956)

ADVOCATES OF BRICKER AMENDMENT ARE IN ERROR ABOUT U.S. OBLIGATIONS

Some of the advocates of the Bricker amendment to the Constitution maintain that, because of treaty commitments under the UN, the President and courts might have to undermine Constitutionally-guaranteed rights.

This is in error. The treaty provisions cited by these advocates of Bricker's proposal are treaty permissions, not treaty obligations. Such permissions are limited by the Constitution and neither the Congress nor the courts has the power to act under them.

(Quincy Wright, "Treaties as Law in National Courts with Special Reference to the United Nations," INDIANA LAW JOURNAL, 32, Fall, 1956)

U.S. ATOMIC ENERGY POLICIES IGNORE STATE GOVERNMENTS' POTENTIALS

What began as the Army's business and then became the A.E.C.'s business,--atomic energy--is now everybody's. Congress has released part of the federal monopoly to private development "almost as if state governments did not exist" despite state concern with health hazards, potential for urban power, zoning, civil defense, and the states' stake in the education of technical personnel. If we are not to decline, our atomic policy must be drastically rethought and clarified so that every level of government can do its part.

(Senator Clinton P. Anderson, "The Atom--Everybody's Business or Nobody's Business," STATE GOVERNMENT, XXIX, Dec. 1956)

AMERICANS BECOMING MORE LIKE EACH OTHER

In getting and spending, Americans are becoming more like each other. Differences between regions and between races grow less. "...the dominant impression is one of uniformity."

In terms of economic power the Northern big cities continue to grow in importance.

(Irwin Friend and Irving B. Kravis, "New Light on the Consumer Market," HARVARD BUSINESS REVIEW, 35, Jan-Feb., 1957)

NEED FOR ATOMIC ENERGY STIMULATES NEW DRIVE TOWARD WESTERN EUROPEAN ECONOMIC INTEGRATION

Belgium, France, Germany, Italy, Luxembourg and the Netherlands have ironed out differences on draft treaties to create a common market and EURATOM and it is hoped that they will be signed in 1957.

The recommendations for the common market are: (1) step-by-step elimination of national tariff barriers among the six, (2) common commercial policy vis-a-vis the rest of the world, (3) stimulation of intra-community competition, (4) increased exchange of agricultural products among the six, and (5) common planning and investment for economic development.

Recommendations for EURATOM (stimulated by prospects of a shortage of conventional energy and inability to pay for individual atomic industrial energy programs) are (1) joint research and training, (2) common atomic energy units, (3) a common market for atomic materials, supplies, equipment, and investment money, and (4) common control of the price of nuclear ores and fuels.

Structurally, a European Atomic Energy Commission, appointed by the six governments but having independent authority to act, receiving policy direction from a common Council of Ministers, would be responsible to a common parliamentary assembly -- as would a common market authority. A court would be created to hear disputes between EURATOM or any common market authority and national governments or individuals.

(John D. Blumgart, "Euratom and the Common Market," REPORT ON EUROPEAN UNITY series, issued irregularly by the American Committee on United Europe, Dec. 1956)

SUPRANATIONAL JUDICIAL REVIEW UNDER THE EUROPEAN COAL & STEEL COMMUNITY

Enterprises under the High Authority of the European Coal and Steel Community can seek legal protection outside of national courts. The treaty creating the Community lists grounds on which legal redress can be sought. Enterprises must show their interests were or will be injured by action or inaction by the High Authority. They may not appeal acts by the Council of Ministers or measures of the member nations, but may appeal to the Authority Court on grounds of inaction by the Authority, and presumably the court would then have to inquire into whether national action complained of is in violation of the Treaty creating the Coal and Steel Authority and justifies Authority action.

(Gerhard Bebr, "Protection of Private Interests under the European Coal and Steel Community," VIRGINIA LAW REVIEW, 42, Nov. 1956)

ADVOCACY OF TARIFF REDUCTION NOT LIKELY TO INCREASE WORLD TRADE; EXPORT SUBSIDIES WOULD

Trade between nations would probably be increased by a shift of policy from tariff reduction to export subsidies.

Efforts to reduce tariffs have not achieved much. Tariff reductions carry a risk of deflation, always painful. Pressure groups (whose members vote) always resist them. Consumers bring hardly any pressure to bear in favor of them. The seeming beneficiaries, all foreigners, do not vote.

Export subsidies are complex to administer and difficult to calculate the effects of, but their advantages are that they are acceptable. They are inflationary; almost no one objects to this if it is gradual. Pressure groups do not resist them.

Export subsidy policies run counter to international organizations' taboos, but they would probably be attainable and effective.

(J. Wemelsfelder, "A Rehabilitation of Export Subsidies," AMERICAN ECONOMIC REVIEW, XLVI, Dec. 1956)

BRITAIN'S ATOMIC ENERGY AUTHORITY

The British Atomic Energy Authority is an interesting administrative combination of power, flexibility, and responsibility. It is not limited to British or Commonwealth territory but may collaborate with or exchange data with other nations and UN agencies. It has extensive powers of self-regulation free from the usual restraints put upon Authorities (e.g., it can hire police for its own properties; it can discharge persons of questionable security risk who have not been found disloyal; it is free from the customary detailed supervision by Treasury.) Its functions include research, production of fissile material, design and production of atomic "hardware," and promotion of industrial uses of atomic energy and its byproducts. It is responsible to Parliament, through the Lord President by way of a Cabinet Committee.

(R. Darcy Best, "The United Kingdom Atomic Energy Authority," PUBLIC ADMINISTRATION, London, XXXIV, Spring, 1956)

WEST GERMAN PROSPECTS ARE CONTINUED DEMOCRACY AND POLITICAL STABILITY

The West Germans have become accustomed to parliamentary democracy and to association with the West. They think practically about politics and are less addicted to metaphysics. The new German army-to-be will not threaten German democracy. Although the opposition Social Democrats are still against German membership in NATO and universal military service, the recent victory of the party moderates suggests that these policy positions may change. West Germans have a strong interest in the development of NATO into more than a military alliance.

(Hans Kohn, "Germany in the New Europe," CURRENT HISTORY, Nov. 1956)

. . . . . .

German trade unions' programs are now realistic. They recognize the disparity in strength between organized labor and German business and that the present German parliament will do little for the unions.

The German Trade Union Federation will support peaceful attempts to prevent rearmament. It will not maintain any contact with Communist unions.

(Richard Becker, "German Trade Unions Believe in Realistic Policies, FREE LABOUR WORLD, Brussels, 7, Nov. 1956)

FRENCH PROSPECTS ARE CONTINUED INCAPACITY

France is not a rich country; her coal supplies are marginal; she has failed to keep up with West German and British economic growth. Whatever happens to France in Africa, inflation and political instability will continue. Only as part of a unified Europe could she progress.

(Edward W. Fox, "France After NATO," CURRENT HISTORY, Nov. 1956)

ITALIAN PROSPECTS ARE POLITICAL COALESCENCE AROUND THE LEFT, AND ECONOMIC DEVELOPMENT

From 1948-1953 the Christian Democrats, under Premier DeGasperi, gave Italy stable government. From 1953 until recently this party and the Center Bloc, having lost strength, wobbled on the political fulcrum.

The 1956 election shifted strength from the extreme Right, from the Communists, to the Center, to the Saragat Social Democrats, and startlingly to the Left-wing Nenni Socialists. Nenni may break with the Communists. The Communists are disorganized by internal divisions about the downgrading of Stalin and its ideological implications. There is a chance that the Center and Nenni's Left-Wing may come together.

The government, at last, is developing the land, implementing land reform, and interesting itself in unemployment and in increasing productivity. Great natural gas and oil deposits make gains possible.

(Charles F. Delzell, "Italy: Opening to the Left?" CURRENT HISTORY, Nov. 1956)

ISRAEL HAS CREATED AN EFFECTIVE BUREAUCRACY FROM NOTHING

In 1948 Israel had no administrators. (Under the Palestine Mandate all top civil servants were British, 2/3s of the rest were Arabs; both departed at once. Very few of the remaining administrators, who were Jews, were trusted.) Using the nucleus of a few Palestine Jews of known loyalty, borrowing from

Jewish organizations such as the Jewish Agency Council and the Histadrut, from political party offices, from banks and universities, combing new immigrants for skills, and training young people despite inexperience, a negligible cadre, 650,000 immigrants, war, Arab blockade, and internal friction, Israel has created a new civil service that is rapidly becoming non-political and permament.

(The Hon. Edwin Samuel, "A New Civil Service for Israel," PUBLIC AIMINISTRATION, London, XXXIV, Summer, 1956)

SPANISH PROSPECTS ARE SLOW SOCIAL CHANGE

The individualism of the Spaniard and the strength of family and friendship make him resist government regulation. To hold Spain together and keep the peace a Spanish government must be a strong one. Spain is a monarchy without a king.

The Franco government is sustained by the Army, the Catholic Church, the Monarchists, and the only legal party--the Phalanx. A slow social revolution is weakening the aristocracy, strengthening the middle classes, yet leaving the lower classes unbenefited and dissatisfied. The influence of the Phalanx has declined.

The Spanish-American agreement for the use of bases benefits both countries. Spain's friendship with Germany strengthens the Western alliance, her competition with France weakens it.

(Rhea Marsh Smith, "Spain Looks to the Future," CURRENT HISTORY, Nov. 1956)

AMERICA'S "GOOD PARTNER" POLICY RE LATIN AMERICA IS A FAILURE

"The central challenge of American foreign economic policy in Latin America was /and is/ the financing of economic development," yet U.S. aid money already authorized but not yet disbursed has been turned down to a trickle of less than $1,000,000 per month.

"...outright and deliberate discrimination against Brazil...constitutes the grevious error of the good partner policy. /The Administration has/ virtually suspended financing for basic facilities in Brazil... maximum pressure /has been put/ upon Brazil to force an entry for the petroleum companies."

America cut the Inter-American Highway program in half, only to rediscover it again in 1954 and put some more money into it. America intervened flagrantly unilaterally in Guatamala.

In sum, "in the space of a few months, the spirit of the good-neighbor policy which had consisted of sincerity of interest, mutual respect, and confidence in each other, has been replaced by the good-partner's successive demonstrations of bad faith and disrespect in the form of a belief that our partners could be deceived indefinitely...In the space of a few months, there has been a major retrogression in the field of cooperation in economic development...."

(Simon G. Hanson, "The Good-Partner Policy," INTER-AMERICAN ECONOMIC AFFAIRS, 10, Autumn, 1956)

FORMOSA
CHINA'S PRESS: LIMITED CRITICISM PERMITTED

The International Press Institute regards the press on Formosa as totalitarian-controlled. This, says the author, is not true. Chinese and English language papers are often critical of the government. Some are even classified as opposition papers. In two areas (trial by newspaper, and press criticism of individual character amounting to legal character defamation) the press is even more free than America's.

Government pressures exist, but "newspaper editorials and stories,...the boldness of reporters and photographers...do not suggest the rigors of a police state."

(Carlton Culmsee, "How Free is the Press in 'Free China'?", JOURNALISM QUARTERLY, 33, Fall, 1956)

THE USSR AND HER ALLIES:

RUSSIAN FOREIGN POLICY GOALS

Russian ambitions in foreign policy have not diminished, even though her methods have changed. To anticipate her "...we must look to /Russian/ interests, particularly to interests that have become imbedded in tradition." These are security against the West and access to warm seas.

(Alvin Johnson, "The Russian Bear Walks Again," SOCIAL RESEARCH, 23, Autumn, 1956)

SOVIET SCIENTISTS' INFLUENCE BEYOND SCIENCE, ON GOVERNMENT POLICY, NIL

Compared to the courageous action of the politically alert minority of American scientists who, through the Federation of American Scientists and the BULLETIN OF THE ATOMIC SCIENTISTS, seek "to transmit to legislators, administrators, publicists, and civic leaders the awareness /of actions necessary to prevent the harmful uses of the achievements of science/ which their scientific experience has given them...." in Russia there is nothing.

"There is still not the slightest sign of such a movement in the Soviet Union despite the 'thaw,' and this silence certainly cannot be accounted for by the absence of problems to comment on, or by the 'harmon-

ious' relations between scientists and politicians and administrators in the Soviet Union. The absence of a scientists' movement in the Soviet Union is a function of the incapacity of the ruling group...to tolerate an independent organization which would criticize according to its own lights, and to the mixture of fear and habituation which among Soviet scientists leads them to assent to any policy promulgated by their political authorities."

(Edward Shils, "Freedom and Influence: Observations on the Scientists' Movement in the United States," BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957)

CZECHOSLOVAKIA: ECONOMIC LAG AND PASSIVE RESISTANCE

Initial good will toward Russia is gone. There are strikes, sporadic small revolts, passive resistance by the industrial workers, and resistance to collectivization by the farmers. Youth has not succumbed to Communist indoctrination. Although production is up to 200% of 1937, wages are down 20%. For 2,000,000 less people than in 1937 Czechoslovakia now has to import more grain and cereals than before the war. Food costs are high; housing is short. The governing class alone is stubbornly pro-USSR.

(J. Gellner, "Czechoslovakia, 1956," MARINE CORPS GAZETTE, XL, Dec. 1956)

COMMUNIST CHINA: LEADERSHIP

Power is concentrated in the hands of a few men. "There is a splendid esprit de corps among them... These veterans...assume that leadership automatically belongs to them....

"...Mao Tse-tung is the sole Marxist theorist...endowed with the wisdom to interpret the party line....

"...So far no evidence of divisive force has yet emerged...."

(Djang Chu, "Leadership in Communist China," CURRENT HISTORY, Jan. 1957)

THE VANISHED SCHOLAR LEADER

"...a comprehensive university...no longer exists... /in China./

"...Chinese scholarship has in various periods attained standards of objectivity and devoted inquiry comparable to our own best traditions...by these... standards...the present...will be found wanting....

".../It was/ stated quite bluntly...it was possible to follow a non-Marxist method but that method must

not be hostile to Marxism...very little is untinged by the Marxist brush...

"In general academics and other intellectuals are clearly a favoured class. Salaries are...high.... They often have very pleasant homes...they have generous funds for their work...relations with politicians...are close. They remain an elite... If a man is content with all this...life could be very good. But if he should still wish to be allowed objectivity in scholarship, creativeness in art...he cannot have them."

(A. R. Davis, "Chinese Academic Institutions in 1956," MONOGRAPH, Sydney, VIII, Sept. 1956)

COMMUNIST CHINA'S PRESS: PROPAGANDA TOOL, BUT DULL

The Communist Chinese press is patterned exactly after the Soviet press. The newspaper is a means of propaganda and agitation and an instrument of control over the lower bureaucracy through "self-criticism" and brigades of letter writers. Its subject is never human interests nor fresh news but social and industrial processes. In structure it parallels government (a hierarchy of national, provincial, administrative district, and city papers). In addition there are specialized papers. Print is supplemented by vast numbers of mimeographed distributions, countless board or wall papers, and oral agitation. Special and successful efforts have been made to expand circulation, particularly among the peasants.

Technically the papers are poor. Good journalists are lacking and party restrictions hedge in the journalist-editor and prevent originality. Communist jargon and the burden of such subject matter as complicated industrial processes are barriers to readers and writers. These combine to make the press, as an instrument, "considerably compromised in its effectiveness."

A very few privately controlled papers still exist, closely regulated.

(Franklin W. Houn, "The Press in Communist China: Its Structure and Operation," JOURNALISM QUARTERLY, Fall, 1956)

THE WORLD COMMUNITY:

INTERNATIONAL LAW

There is a hiatus between the legal and the actual definitions of a state of war. Legally, in the absence of any peace treaty, we are still at war with respect to Korea. Historical precedents in which wars have, like Korea, shifted gradually from truce

to a new status quo, should be weighed to modify the law and make it more useful.

(A. Kenneth Pye, "The Legal Status of the Korean Hostilities," GEORGETOWN LAW JOURNAL, 45, Fall, 1956)

INTERNATIONAL LAW OF NEUTRALITY DISTORTED TO COVER INTERVENTION

Another shortcoming in existing international law is that which permits nations to allow recruitment, organization, and dispatch of volunteer armed forces. Article 6, Hague Convention V of 1907, respecting Rights and Duties of Neutral Powers and Persons in War on Land, clearly states that the responsibility of the neutral State is not engaged by such activities. But this was appropriate to and based upon the individualism and laissez-faire of an early era. Today pseudo-volunteers are used as an instrument of government policy to begin or sustain hostilities.

Numerous national provisions and a UN General Assembly resolution recognize this. The law should be changed to reflect the fact that the character of the volunteer has changed; today he is an agent.

(Ian Brownlie, "Volunteers, and the Law of War and Neutrality," INTERNATIONAL AND COMPARATIVE LAW QUARTERLY, 5, Oct. 1956)

THE INTERNATIONAL CIVIL SERVANT

Who is to protect the rights of international civil servants? The UN has individual employment contracts with many of its staff. Contractual matters affecting the status of a staff member cannot be changed other than by agreement of the two parties. Statutory elements of the contract which affect the international civil service in general may always be unilaterally changed by the organization. The legal relationship does not fall within any municipal law. Only the most universal and fundamental principles of municipal contract law would be applicable. The doctrine that contract can be abrogated on the basis of the overriding requirements of public policy is unwarranted. In case of breach of contract employees can appeal to the UN Administrative Tribunal. This tribunal's rulings may be appealed to the International Court of Justice by asking for an advisory opinion.

(Based on L. C. Green, "The International Civil Servant, His Employer and His State," GROTIUS SOCIETY TRANSACTIONS, London, 40, 1954; David A. Booth, "The United Nations, the United States and the International Civil Service," REVUE INTERNATIONALE DES SCIENCES ADMINISTRATIVES, Brussels, 21, 1955; Edward W. Powers, "Administrative Tribunals as Adjudicators of Disputes Arising Out of Employment Contracts with International Organizations," MICHIGAN

LAW REVIEW, 54, Feb. 1956; and Ivor L. M. Richardson, "The Legal Relation Between an International Organization and Its Personnel," WAYNE LAW REVIEW, 2, Spring, 1956)

PROSPECTS OF DISARMAMENT ARE NIL

The USSR will not disarm nuclearly; it seeks to use disarmament to get U.S. conventional armed forces out of Europe. The U.S. sees no point in any agreement affecting only non-atomic arms. Prospects of agreement are nil.

(William R. Frye, "Disarmament: The Bargain Counter," BULLETIN OF THE ATOMIC SCIENTISTS, XII, Sept. 1956)

IDEAS FOR NUCLEAR DISARMAMENT

If an agreement to ban further nuclear tests were achieved, the UN could set up a monitoring agency operating on the continental fringes and the high seas and detect violations. If limited inspection inside national boundaries were agreed to, test inspection teams could estimate the size of each bomb tested, accurately.

Stopping atomic and hydrogen bomb testing would slow down the arms development race in intercontinental ballistics missiles (for it seems that hydrogen warheads in effective and compact form are not yet developed.) Unless ICBM development is slowed by stopping nuclear tests, in short time many nations will have missiles concealed in scattered holes in the ground ready to destroy cities at the irrational whim or suspected danger of a local commander in Russia or Egypt or Argentina. If nations can agree to tolerate a network of UN observation posts, for nuclear test observation, missile observation at the same posts, by radar, would not be difficult.

Russia's and our stockpiles of nuclear arms approach saturation. We and they move toward equality in capacity to destroy. Defense will lag behind offence; offence cannot be total; therefore mutual destruction seems the prospect; therefore mutual advantage should persuade the Russians to join us in trying to ban tests.

(David R. Inglis, "Prospects for Stopping Nuclear Tests," BULLETIN OF THE ATOMIC SCIENTISTS, XIII, Jan. 1957)

SCIENTISTS AS A RISING ELITE; THE LAB MAN'S BURDEN

Although scientists have been losing prestige in the public mind in America, this is bound to be reversed. Although scientists' influence in government is less today than immediately post-World War II, scientists are gaining influence among business management. In the USSR scientists are generally trusted and in the long run scientists' influence will edge Soviet policy

toward objectivity and rationality. In other countries scientists are gaining in influence. In sum, in all countries they are likely to press for public policies based on long range rational planning.

Expansion by conquest is impossible; it means destruction. Technology increasingly diminishes the significance of differences between nations' economic systems. Conflicts are shifting to the areas of the ethical and cultural values of freedom.

Duty calls. Scientists should learn more about world affairs and use their influence to rationalize the behavior of men and nations.

(Eugene Rabinowitch, "History's Challenge to Scientists," BULLETIN OF THE ATOMIC SCIENTISTS, XII, Sept. 1956. The same moral imperatives are urged in Clifford Grobstein, "The Social Conscience of U.S. Science: Sketch of a Decade," ibid.)

WORLD FORECAST

Russian talk of peaceful coexistence is "bogus"; the struggle will continue. The screening of actual tensions will weaken NATO. In Asia, Russia's and Red China's goals are simply to supplant the West. Prospects of a Delhi-Peking axis are dim; "India is weak. It cannot succeed to the power and authority abandoned by the West." Peking will fail to take over Formosa peacefully. Britain should hold Ceylon. In the Middle East the forecast--written before August--was Israel-Arab war. The U.S. and the U.S.S.R. will compete for the role of "moneylender-in-chief" to the Egyptian government. Britain should stay on Cyprus. The anti-French forces in North Africa are "one and indivisable." In the West Indies Britain and the U.S. are beginning a trade war for oil. In five years the West Indies will no longer be part of the sterling bloc.

(A. K. Chesterton, "The International Situation," JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION, London, CI, Aug. 1956)

PART IV

VALUES

MIDWESTERN AMERICAN OPINION OF UN

Content analysis of Indiana newspapers indicates that: (1) although 71% of all opinions of UN special agencies and programs are favorable, they are close to nil in number; (2) opinions of the UN as a whole, at a moment of maximum focus of attention upon it, are very small in number and evenly divided between pro and con. Democratic papers are more pro-UN than Republican ones.

(Alfred E. Kuenzli, "United Nations Content in Indiana Newspapers," JOURNAL OF SOCIAL PSYCHOLOGY, 44, August, 1956. Similar findings of the British national press have been reported earlier by Henry C. Bush, "The United Nations as a Norm in British Opinion," PUBLIC OPINION QUARTERLY, 18, Winter, 1954-55)

FOREIGN CORRESPONDENTS IN AMERICA: WHAT THEY KNOW AND HOW THEY SEE AMERICA

Only 4% of the correspondents in the U.S. for foreign papers are native Americans. 70% work in New York City, 26% in Washington. On the average they have worked as correspondents almost 20 years, and in America 8 or 9. 53% are college trained.

56% think U.S. press coverage of other nations' affairs inadequate and misleading. 60% think our foreign policy overmoral and unrealistic. 60% think our statecraft inferior. 69% think American culture compares favorably with that of the rest of the world.

(Based on questionnaire responses by 111 persons.)

(Donald Lambert, "Foreign Correspondents Covering the U.S.," JOURNALISM QUARTERLY, 33, Summer, 1956)

EX-COMMUNISTS: WHY THEY TELL ALL

Once assured that interviews will be confidential, Ex-Communists are extremely eager to cooperate. Some <u>for catharsis</u> (strong feelings of guilt are eased by out-pourings); some <u>to receive guidance</u> (they are socially isolated, occupationally maladjusted, politically confused); some to <u>participate</u> once again <u>politically</u> (they see the interview as a blow at the Party; some for <u>ego enhancement</u> (they enjoy teaching the interviewer the intricacies of Party affairs.)

(Herbert E. Krugman, "Interviewing Ex-Communists in the United States," PUBLIC OPINION QUARTERLY, 20, Summer, 1956)

COMMUNIST CHINA'S LITTLE LIST: FRIENDS AND ENEMIES RANKED

"...the influential Chinese Communist magazine WORLD CULTURE...known to have unofficial connections with the Ministry of Foreign Affairs, presented the following concise summary of the attitudes of the People's Republic toward other countries:

> To the first category belong the Socialist Soviet Union and the people's democracies in Europe and Asia....Their interests are fully identical with those of China....
>
> To the second category belong the countries of Asia, Africa and Latin America.... They share a common interest in the wiping out of colonialism, and there are no basic conflicts of interests among them, for their common aggressors, oppressors and exploiters are the imperialists....
>
> To the third category belong all the Western countries other than the United States. All these countries had enjoyed special privileges in old China, and...these enfeebled old colonial powers naturally...are not happy to see the Chinese people stand on their feet....
>
> To the fourth category belongs the United States. The United States aggression bloc has from the very beginning adopted a hostile attitude toward the...Chinese people...It has attempted to oust new China from international society...."

Communist ties to the Soviet Union are close, and the faith of Communist China's leaders in Marxism-Leninism burns white hot. They adhere to the latest variation of the Moscow line.

Policy with respect to Asia is to emphasize "peaceful coexistence" and neutralism to India, Japan, Indonesia, and Southeast Asia, while maintaining close connections with Communist leaders and with overseas Chinese. Respecting "colonialism" the theme is "EGYPTIAN BROTHERS, WE ARE ON YOUR SIDE!" (headline August 9, 1956, in CHING NIEN PAO, Peking newspaper.)

(Norman Palmer, "Foreign Policy of Communist China," CURRENT HISTORY, Jan. 1957)

ISLAM'S INTERNAL CONFLICT

"Islamic sentiment" is in internal crisis.

The modernists assume that the "good" aspects of Western culture can be adapted to Islamic values, and are concerned with practical social, political and legal problems. Most officials are modernists.

The conservatives, whose leaders are now politically active, seek various forms of return to traditional medieval Islam (some revival of the Caliphate; some a monolithic system in which all details of life are prescribed by the priests.)

The result is confusion and conflict.

(F. Rahman, "Internal Religious Developments in Present Century Islam" JOURNAL OF WORLD HISTORY, II, 1955)

INDIA: THE MIDDLE CLASS

Among Indians of middle class status strong social and family discipline hedges in the individual; he must conform. There is strong cultural emphasis upon reason and intellect. There is little anxiety about success or failure, for the hierarchical family and the caste system make success or failure improbable if not impossible.

There is a cultural taboo against hostility or aggression, and self control is praised.

The combination of enforced conformity, lack of personal involvement, and encouraged intellectuality frequently results in withdrawal and passivity--suffering rather than achievement.

(Based on 24 students, male, most Hindu, from 11 States of India.)

(Hari Shanker Asthana, "Some Aspects of Personality Structuring in Indian (Hindu) Social Organization," JOURNAL OF SOCIAL PSYCHOLOGY, 44, 1956)

---VILLAGERS

Among Indian villagers, the more male children one has the more status one has. The number of villagers not wanting more children is quite small.

(William A. Morrison, "Attitudes of Males Toward Family Planning in a Western Indian Village," MILBANK FOUNDATION QUARTERLY, XXXIV, July, 1956)

NORTH AFRICA

Negro novels and articles in French Africa, under French censorship, are generally barren of social and political ideas. In poetry, however, (because of its protective coloration) one finds a strong sense of isolation, dislike of all things Western, and strong awareness of race and racial tensions.

(Miriam Koshland, "Contemporary African Negro Literature," BOOKS ABROAD, 30, Summer 1956)

THE HIGH PRESTIGE OF DEMOCRACY IN SOUTHEAST ASIA

Before Western occupation several of the lands of Southwest Asia were royal despotisms; none was democratic. Until Japanese occupation every country but Thailand was under colonial rule, and although some of the forms and substance of democratic government existed in each, only in the Philippines was the goal of self government accepted by the rulers and local institutions shaped accordingly.

Most of these new democracies are shaky, but so firmly is the idea of representative government established that no politician can succeed who does not publicly solicit and obtain the support of the people. No obvious or publicly justified dictatorships have emerged and each government has resisted "inherent tendencies to fragmentation."

(Victor Purcell, "Has Parliamentary Democracy a Future in Southwest Asia?" PARLIAMENTARY AFFAIRS, London, IX, Autumn, 1956)

. . . . . .

"Local nationalism stands...as the strongest deterrent to the expansion of Chinese communism...

"...India, Burma and Indonesia, in dealing with the Peking regime, have all succeeded in maintaining their own social systems...

"The prospects that the Eastern, especially the Southeast Asian, peoples may solve their own common social and economic problems have become increasingly bright...

"...Chinese Communist influence in the East...seems certain to diminish..."

(Shen-Yu Dai, "Chinese Communist Ideology," CURRENT HISTORY, Jan. 1957)

PART V

NOTES ON THEORY OF INTERNATIONAL RELATIONS

LEADERSHIP POSSIBILITIES

Specific political institutions or procedures are not the buttress nor drag they are thought to be. They are less important than group or follower "morale," "style of living," and "social climate" in limiting what leaders can lead groups to do.

(Based on a reexamination of Kurt Lewin's experiments and theory.)

(Henry S. Kariel, "Democracy Unlimited: Kurt Lewin's Field Theory," AMERICAN JOURNAL OF SOCIOLOGY, LXII, Nov. 1956)

. . . . . .

Changes of individuals' attitudes and values by exposure to another culture depend less upon political or ideological affinities than upon situational factors such as social climate and morale. (For example, foreign students, left unnoticed at a large American university, carp about the "impersonalism" of American culture.)

(M. Brewster Smith, "Cross-Cultural Education as a Research Area," JOURNAL OF SOCIAL ISSUES, XII, No. 1, 1956; Richard T. Morris, "National Status and Attitudes of Foreign Students," ibid.; Rose K. Goldsen, Edward S. Suchman and Robin M. Williams, Jr., "Factors Associated with the Development of Cross-Cultural Social Interaction," ibid.; and Claire Selltiz, Anna Lee Hopson and Stuart W. Cook, "The Effects of Situational Factors on Personal Interaction between Foreign Students and Americans," ibid.)

TOWARD BUT NOT TO A UNIFIED THEORY OF HUMAN BEHAVIOR

There seems to be general agreement among leading scholars upon system theory as the basis for a unified point of view of human behavior (groups, societies, nations, etc. to be viewed as systems and analyzed as such.) Linked to this organizing concept, two lower level theories are thought by most to offer promise: information theory (Talcott Parsons dissenting) and the concept of functional equilibria or homeostasis. Differences among systems seem to be about how conceptually rigorous or how tied to "real" data a system should be.

The author by inference criticizes the scholars' failure to weigh more heavily the problems of utility and values. There is a conviction held by some scholars that unifying theory should place some emphasis upon symbolic goals and purposes.

(James Miller, a comprehensive review of Ray Grinker, (ed.) TOWARD A UNIFIED THEORY OF HUMAN BEHAVIOR, and an evaluation of condensed transcripts of four biennial conferences of leading scholars in the social sciences, held to discuss the possibilities of integration of the behavioral sciences. BEHAVIORAL SCIENCE, I, Oct. 1956)

PERIODICALS READ

Administrative Science Quarterly
Advanced Management
Advancement of Science
Air University Quarterly Review
American Anthropologist
American Aviation
American Business
American City
American Economic Review
American Historical Review
American Journal of Economics and Sociology
American Journal of Sociology
American Scientist
American Scholar
American Sociological Review
Annals, Association of American Geographers
Armed Forces Management
Armor
Army
Army Aviation
Army Information Digest
Atomic Energy Commission Releases
Atomic Industrial Forum Reports
Automatic Control

Behavioral Science
Books Abroad
British Journal of Sociology
Bulletin of the Atomic Scientists

Cambridge Law Journal
Columbia Law Review
Confluence
Controller
Cornell Law Review
Current Economic Comment
Current History

Econometrica
Economic Development and Cultural Change
Economic Geography
Economic Journal
ETC.

Focus
Free Labour World

Geographical Journal
Georgetown Law Journal
Grotius Society Transactions

Harvard Business Review
Harvard Law Review
Human Organization
Human Relations

Impact of Science on Society
Indiana Law Journal
Industrial and Labor Relations Review
Industrial Quality Control
Inter-American Economic Affairs
International and Comparative Law Quarterly
International Journal of Linguistics
International Labour Review
International Organization
International Monetary Fund Staff Papers

Journal of Geography
Journal of Modern History
Journal of Political Economy
Journal of Social Issues
Journal of the History of Ideas
Journal of Abnormal and Social Psychology
Journal of Social Psychology
Journal of the Operations Research Society of America
Journal of the Royal United Service Institution
Journal of World History
Journalism Quarterly

Labor's Economic Review
Labor Education Guide
Labor Law Journal
Laborer
Labour
Labour Magazine
Labour Monthly
Land Economics
Law and Contemporary Problems

Management Review
Management Science
Manager, The
Marine Corps Gazette
McGill Law Journal
Michigan Law Review
Milbank Foundation Quarterly
Military Affairs
Military Engineer
Military Government Journal and News Letter

Modern Law Review
Monograph
Monthly Labor Review

National Geographic Magazine
National Municipal Review

Office Management
Operations Research Society of America Papers
Ordnance

Parliamentary Affairs
Personnel
Personnel Journal
Philosophy of Science
Process Control and Automation
Psychiatry
Psychological Review
Public Administration
Public Administration Quarterly
Public Management
Public Opinion Quarterly
Public Personnel Review
Publishers Weekly

Quarterly Journal of Economics

Report on European Unity Series
Research
Research Trends
Review of Economics and Statistics
Revue Internationale des Sciences Administratives

Science
Scientific American
Scientific Monthly
Social Forces
Social Research
Sociology and Social Research
Southern Economic Journal
State Government
Supervisory Management
Survey of Contemporary Economics
Survey of Current Business

Technology Review
Tooling and Production

United States Naval Institute Proceedings
University of Chicago Law Review

Virginia Law Review

Wayne Law Review

Yale Law Journal

SUBJECT INDEX

Afghanistan, 3-4
Africa, 3, 10, 43, 45, 46
Air Power, 5-10
Airborne units, 11
Arctic, 11
Armored units, 10-11
Artificial satellite, 28
Asia, 17-18, 21, 39-40, 43, 45-6-7
Atomic Energy, 2-3, 24-9
Attrition, war by, 17
Automation, 29-30

Belgium, 34
Brazil, 37-8
Bricker amendment proposal, 33
Britain, 12, 13, 18, 20-1, 24, 25, 27-8, 35, 43
Burma, 47

Canada, 24
Central Asia, 21
Ceylon, 4
China, Formosa, 38, 43
China, Communist, 17, 21, 23-4, 39-40, 43, 45, 47
Computers, 29
Czechoslovakia, 39

Democracy, 47
Denmark, 14
Disarmament, 5, 42
Dispersal, 9
Dollar gap, 19

Egypt, 10, 43
EURATOM, 25, 34
European Atomic Energy Society, 25
European Common Market, 34
European Coal and Steel Community, 34
Ex Communists, 44
Export Subsidies, 35

FAO, 1-2
Finland, 14
Fire hazards from nuclear explosions, 12
Food, 1-2, 28
France, 14, 25, 27, 34, 36, 43, 46

GATT, 1-2
Geneva Conference on Atomic Energy, 2-3, 24, 27
Germany, 7, 13-4, 21, 26, 34, 35-6
Greece, 10
Guatemala, 37-8

Hawaii, 11
Homeostasis, 48-9
Hungarian crisis, 6-7
Hydrogen bomb, 8-9, 31

Iceland, 14
India, 4, 25, 43, 45, 46, 47
Indonesia, 46
Information theory, 48-9
Inter-American Highway, 37-8
International civil servants, 41-2
International law, 40-1
Islam, 45-6
Israel, 24, 36-7, 43
Italy, 10, 34, 36

Japan, 8, 10-11, 26, 27

Korea, 10, 40

Labor, 36
Latin America, 15, 37-8, 45
Liberia, 3
Libya, 10
Linear programming, 30
Luxembourg, 34

Management, 20, 22-3, 29-30
Mao Tse-tung, 17, 39
Mediterranean, 10
Morocco, 10

Nationalism, 10, 47
NATO, 7-8, 13-14, 35-6
Netherlands, 24, 25, 34
Neutralism, 14
Norway, 14

Operations Research Society of America, note, p.11

Population, 1-2, 19, 28, 46
Public opinion, 31, 42

Radiation hazards, 8-9
Radioactive isotopes, 27
Ready forces, 10-11, 12
Reactor construction, 24-7

Scandinavia, 14
Scholars and Scientists, 29, 31, 32,
38-9, 39-40, 42-3
Sea power, 8, 15-16
Southeast Asia, 47
Spain, 37
Stockpiling, 9
Suez crisis, 6-7
Sweden, 14, 24
Switzerland, 24-5
System theory, 48-9

Tariff policies, 35
Team research, 30

UN, 42, 44
UN Administrative Tribunal, 41
UN International Atomic Energy
Agency, 26, 27-8
USA, 1, 5-13, 15, 18-20, 24-7, 29-30, 31-4,
37-8, 42, 44
USSR, 6-8, 15-16, 17, 19, 21-3, 24, 27,
29, 30, 38-9, 42, 45

Volunteers, 41

War gaming, 11, 18-19
Weapons programming, 12
West Indies, 43